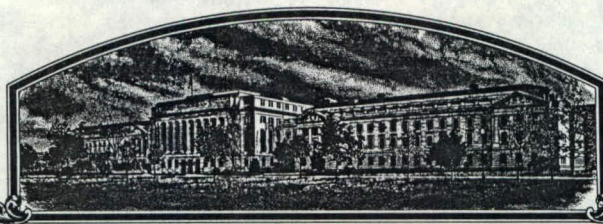


No.

8400017



# THE UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

Alabama Agricultural Experiment Station  
Dept. of Agronomy & Soils, Auburn University

Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (U.S.C. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TALL FESCUE

'Au Triumph'

Attest:

*Kenneth H. Love*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 29th day of March in the year of our Lord one thousand nine hundred and eighty-five.

*John R. Block*  
Secretary of Agriculture



1855





# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S) Agronomy and Soils Department, Auburn University, Agricultural Exp. Station		2. TEMPORARY DESIGNATION AF-5	3. VARIETY NAME AU Triumph
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) Auburn, AL 36849		5. PHONE (Include area code) (205) 826-4100	FOR OFFICIAL USE ONLY PVPO NUMBER <b>8400017</b>
6. GENUS AND SPECIES NAME <u>Festuca arundinacea</u>	7. FAMILY NAME (Botanical) Gramineae		
8. KIND NAME Tall Fescue	9. DATE OF DETERMINATION 1976		FILING DATE 11-29-83 TIME 2:30 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) University		FEES RECEIVED AMOUNT FOR FILING \$ 1,000 DATE 11/29/83 AMOUNT FOR CERTIFICATE \$ 500.00 DATE 2/4/85	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION			12. DATE OF INCORPORATION

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Dr. J. F. Pedersen, Department Agronomy and Soils, Auburn University, AL 36849

## 14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

- a. ☒ Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- b. ☒ Exhibit B, Novelty Statement
- c. ☒ Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- d. ☒ Exhibit D, Additional Description of the Variety

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) ☐ Yes (If "Yes," answer items 16 and 17 below) ☒ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☒ Yes ☐ No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? ☒ Foundation ☐ Registered ☒ Certified

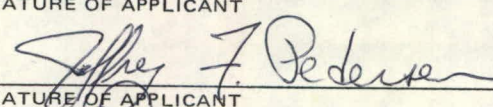
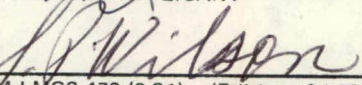
18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES? ☐ Yes (If "Yes," give names of countries and dates) ☒ No

19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES? ☐ Yes (If "Yes," give names of countries and dates) ☒ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT 		DATE Aug 1, 1983
SIGNATURE OF APPLICANT 		DATE 10/11/83
Stanley P. Wilson, Vice President for Agr, Home Ec, & Vet Med		



## INSTRUCTIONS

**General:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Department of Agriculture, Agricultural Marketing Service, Livestock, Meat, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

### Item

- 9 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 14a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 14b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 14c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 14d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 15 If "Yes" is specified (*seed of this variety be sold by variety name only as a class of certified seed*) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "No," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 16 See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



RECEIVED  
NOV 14 1983



Tall Fescue  
'AU Triumph'

14A. Exhibit A:

'AU Triumph' was developed by a combination of mass and recurrent selection. Spaced plants of 121 tall fescue introductions (3 replications, 10 plants each) were evaluated 3 years for vigor, winter growth, regrowth potential, and disease resistance at the Auburn University Plant Breeding Unit, Tallassee, Alabama. To facilitate further selection, 132 individuals were clonally propagated and replicated 4 times in an isolation nursery. After 2 years of further selection, 12 genotypes from this nursery were identified as superior for the above traits. Open pollinated seed was harvested from these genotypes and equal quantities of seed from each were bulked to form an experimental population designated AF-4. These were seeded in isolation and >1000 individuals were reselected for early growth. Bulk seed from the selected AF-4 progeny formed the experimental population AF- 5, or 'AU Triumph'.

No off types have been noted in 'AU Triumph'. All individuals fall within the population parameters described below.

<u>Variable</u>	<u>Mean</u>	<u>Std. Dev.</u>
Heading Date (Julian Day)	117	14
Height at heading (cm)	41	9
Width at heading (cm)	8.6	1.9
Growth Habit (1 = Erect 3 = lax)	1.2	0.4
Height at maturity (cm)	100	16
Internode length (cm)	17.2	3.7
Flag leaf length (cm)	14.2	4.1
Flag leaf width (mm)	6.9	1.8
Panicle shape (1=narrow-tapering) (2= ovate 3 = oblong)	2.0	0.8
Panicle type (1 = open 2 = intermediate) (3 = compact)	2.0	0.8
Panicle orientation (1 = erect 2 = nodding)	1.0	0.2
Panicle pubescence (1 - glabrous)	1.0	0.0
Panicle length at maturity (cm)	26.8	3.1

These data were collected on individual plants after (or during) their first season of growth at two locations (Tallassee and Prattville) in Alabama.

'AU Triumph' has remained stable through three generations. Observation of Breeder's, Foundation, and Certified seed production fields show no discernable differences between generations.



MAY 29 1984



## 14B. Novelty Statement

'AU Triumph' is most similar to 'Fawn' and 'Goar' in having very early heading dates. 'AU Triumph' is shorter in stature than either 'Goar' or 'Fawn' in the first year of establishment. 'AU Triumph' has a wider average crown diameter than 'Goar' at maturity in its first year of establishment. 'AU Triumph' has a more open, ovate head than 'Goar' which has a narrow, compact head. 'AU Triumph's' head is slightly more ovate than 'Fawn' and has a shorter average panicle length than 'Fawn'. 'AU Triumph' is more erect at maturity than 'Fawn'.

The attached ANOVA Table and Duncan's tests support the above statements. Although similar results were obtained when locations were considered separately or combined for most traits, the Tallassee, AL location was flooded for a long period and the plants of all varieties showed considerable stress. Therefore, the data given in 14C which were drawn from these analyses are from only the Prattville, AL location since the individuals in that location were more representative of the varieties considered. Combined location analyses are also provided for your information.

14C 02 YAH



MAY 29 1984



# OBJECTIVE DESCRIPTION OF VARIETY

## TALL & MEADOW FESCUES

(*Festuca* spp.)

NAME OF APPLICANT(S) Agronomy & Soils Dept., Auburn Univ., Agric.	TEMPORARY DESIGNATION AF-5	VARIETY NAME AU Triumph
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) Expt. Station Auburn University, AL 36849		FOR OFFICIAL USE ONLY PVPO NUMBER 8400017

Place the appropriate number that describes the varietal character of this variety in the boxes below. Use leading zeroes when necessary (e.g., 0 8 9) or 0 9 ). Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate system used: \_\_\_\_\_  
Describe location of test area, conditions and number of plants used \_\_\_\_\_

### 1. SPECIES: (With comparison varieties for use below — use varieties within species of application variety)

<input checked="" type="checkbox"/> 1 = <i>F. arundinacea</i> (Tall)	11 = Alta	12 = Fawn	13 = Goar	14 = Kentucky-31
	15 = Festal	16 = S.170	17 = Rebel	18 = Manade
	19 = Kenhy	20 = Missouri 96		
2 = <i>F. pratensis</i> (Meadow)	21 = Ensign	22 = Trader	23 = Beaumont	24 = Admira
	25 = Comtessa			

### 2. CYTOLOGY:

Chromosome Number

### 3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

0 Transition Zone  0 West  2 Other (Specify) Southeastern U.S.

### 4. MATURITY: (Date First Headed, panicle emergence) Location(s) of Trial(s) Prattville, AL

1 Maturity Class:  
1 = Very early (Goar, Fawn) 2 = Early (Alta, Fawn, S.170) 3 = Medium early (K31, Falcon)  
4 = Medium late (Barundi, Rebel, Ensign, Kenhy) 5 = Late ( )

Date Headed April 25, 1983

<input type="text"/> <input type="text"/>	Days earlier than	<input type="text"/> <input type="text"/>	} Comparison Variety (Maturity also the same as 13)
<input type="text"/> <input type="text"/>	Maturity same as	<input type="text"/> 1 <input type="text"/> 2	
<input type="text"/> <input type="text"/>	Days later than	<input type="text"/> <input type="text"/>	

### 5. PLANT HEIGHT (Average of 10 tallest culms):

<input type="text"/> 1 <input type="text"/> 0 <input type="text"/> 8 <input type="text"/> 0	mm Height (at maturity to top of panicle)		} Comparison Variety (118 mm Shorter than 13)
<input type="text"/> 1 <input type="text"/> 5 <input type="text"/> 8	mm Shorter than	<input type="text"/> 1 <input type="text"/> 2	
<input type="text"/> <input type="text"/> <input type="text"/>	Mature Height same as	<input type="text"/> <input type="text"/>	
<input type="text"/> <input type="text"/> <input type="text"/>	mm Taller than	<input type="text"/> <input type="text"/>	} Comparison Variety (Height at ear emergence also the same as 13)
<input type="text"/> 0 <input type="text"/> 4 <input type="text"/> 4 <input type="text"/> 2	mm Height (at ear emergence)		
<input type="text"/> <input type="text"/> <input type="text"/>	mm Shorter than	<input type="text"/> <input type="text"/>	
<input type="text"/> <input type="text"/> <input type="text"/>	Emergence height same as	<input type="text"/> 1 <input type="text"/> 2	} Comparison Variety (Height at ear emergence also the same as 13)
<input type="text"/> <input type="text"/> <input type="text"/>	mm Taller than	<input type="text"/> <input type="text"/>	



MAY 29 1984



## 5. PLANT HEIGHT: (Continued)

<input type="text" value="1"/> <input type="text" value="8"/> <input type="text" value="7"/>	mm Internode length (spring)			
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	mm Shorter than	<input type="text" value=""/> <input type="text" value=""/>		
	Internode same as	<input type="text" value="1"/> <input type="text" value="2"/>		Comparison Variety
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	mm Longer than	<input type="text" value=""/> <input type="text" value=""/>		
<input type="text" value=""/> <input type="text" value="9"/> <input type="text" value="1"/>	mm Width of plant (at ear emergence)			

## 6. GROWTH HABIT (Mature):

<input type="text" value="1"/>	1 = Erect, foliage stiff-upright (Kentucky 31)	2 = Semi-erect (Beaumont, Rebel)	(AU Triumph = 1.2)
	3 = Lax (Aberystwyth S.53)		12 = 1.6
			Significantly different)

## 7. RHIZOMES (Pseudo):

<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	mm Length	<input type="text" value="1"/>	1 = Absent	2 = Rare (Rebel)	3 = Common
---	-----------	--------------------------------	------------	------------------	------------

## 8. LEAF BLADE:

12/12/84 88W

<input type="text" value="2"/>	Color:	1 = Light Green (Roa)	2 = Medium Light Green (Beaumont, Kentucky 31)				
		3 = Medium Dark Green (Rebel)	4 = Dark Green ( )				
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	Anthocyanin:	1 = Absent	2 = Present	<input type="text" value=""/> <input type="text" value=""/>	Hairs (Basal)	1 = Absent	2 = Present
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	Margins:	1 = Smooth	2 = Semi-rough	3 = Rough			
<input type="text" value="3"/>	Width Class:	1 = Fine ( )	2 = Medium Fine (Rebel, Monaco)	3 = Medium Coarse (K-31, Barundi)			
		4 = Coarse (Kenhy)	5 = Very Coarse (Hazel)				
<input type="text" value="1"/> <input type="text" value="7"/> <input type="text" value="0"/>	mm Length (Flag Leaf)						
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	mm Shorter than	<input type="text" value=""/> <input type="text" value=""/>					
	Blade length same as	<input type="text" value="1"/> <input type="text" value="2"/>		Comparison Variety (Blade length same as 13)			
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	mm Longer than	<input type="text" value=""/> <input type="text" value=""/>					
<input type="text" value=""/> <input type="text" value="7"/> <input type="text" value="5"/>	mm Width						
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	mm Narrower than	<input type="text" value=""/> <input type="text" value=""/>					
	Blade width same as	<input type="text" value="1"/> <input type="text" value="2"/>		Comparison Variety (Blade width same as 13)			
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	mm Wider than	<input type="text" value=""/> <input type="text" value=""/>					

## 9. LEAF SHEATH:

<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	Anthocyanin (seedling):	1 = Absent (Kentucky 31)	2 = Present (Kenhy, Forager)
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	Auricle Hairiness:	1 = Absent	2 = Present

## 10. PANICLE (Mature Plant):

<input type="text" value="2"/>	Shape:	1 = Narrow-tapering	2 = Ovate	3 = Oblong	4 = Other (Specify) _____
<input type="text" value="2"/>	Type:	1 = Open	2 = Intermediate	3 = Compact (appressed)	
<input type="text" value="1"/>	Orientation:	1 = Erect	2 = Nodding		
<input type="text" value="1"/>	Branch Pubescence:	1 = Glabrous	2 = Pubescent		
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	Anther Color:				
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value=""/>	Glume Color (At 50% Flowering):	1 = Yellowish Green	2 = Green	3 = Bluish Green	
		4 = Purplish	5 = Reddish	6 = Other (Specify) _____	

(ATTN. Goar is narrow tapering - compact) (13)



MAY 29 1984



## 10. PANICLE: (Continued)

2 6 8

mm Length (from base of panicle branch to the tip)

3 7

mm Shorter than

1 2

Panicle length same as

mm Longer than

Comparison Variety

## 11. PALEA:

HAIRS (On keels or margins):

1 = Absent

2 = Short (Missouri 96)

3 = Long (

)

## 12. LEMMA:

HAIRS: 1 = Absent (Kenhy)

2 = Several

3 = Many (Missouri 96)

mm Lemma Length (Mature)

mm Shorter than

Lemma length same as

mm Longer than

Comparison Variety

mm Lemma Width

mm Narrower than

Lemma width same as

mm Wider than

Comparison Variety

AWNS: 1 = Absent (Beaumont)

2 = Present (Falcon, Barundi)

mm Awn Length

mm Shorter than

Awn length same as

mm Longer than

Comparison Variety

## 13. SEED (With Lemma &amp; Palea):

2 3 6 4

mg per 1000 seed

7 1 1

mg per 1000 seed less than

1 2

Seed weight same as

mg per 1000 seed more than

Comparison Variety

## 14. DISEASE, INSECT, AND NEMATODE REACTION (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

0

Melting-out *Drechslera poae*  
(*Helminthosporium vagans*)

0

Blind Seed *Gloeotinia temulenta*

0

Leaf Spot *D. siccaus*

0

S. Patch *Sclerotinia homocarpa*

0

Net Blotch *D. dictyoides*

0

Stripe Smut *Ustilago striiformis*

0

Brown Patch *Rhizoctonia solani*

0

O. Patch *Ophiobolus graminis*

0

C. Leaf Spot *Cercospora fectuceae*

0

T. Blight *Typhula incarnata*

0

Pink Snow Mold *Fusarium nivale*

0

Pythium Blight *Pythium spp.*

0

Silver Top *F. tricinctum*, *F. roseum*

0

Powdery Mildew *Erysiphe graminis*

0

Crown Rust *Puccinia coronata*

0

Nematode



MAY 29 1984



## 14. DISEASE, INSECT, AND NEMATODE REACTION: (Continued)

0	Insect _____
0	Other _____
0	Other _____

15.

	PHOTOPERIOD:      1 = Non-sensitive      2 = Sensitive
--	--

16.

1	WINTER HARDINESS:    1 = Susceptible    2 = Resistant (establishment year)
---	---

## 17. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics indicate Degree of Resemblance by placing in the column marked, D.R., one of the following numbers:

1 = Application variety is less than comparison variety    2 = Same as  
3 = More than, better, greater, darker, more disease resistant, etc.

CHARACTER	VARIETY	D.R.	CHARACTER	VARIETY	D.R.
Leaf Width			Leaf Color		
Panicle Color			Panicle Shape		
Seed Size			Cold Injury		
Winter Color			Heat		
Shade Tolerance			Disease*		
Drought Tolerance					

\* Specify each disease evaluated.

## 18. ADDITIONAL DESCRIPTION: (Use additional sheets as required)

Describe all characteristics that cannot be adequately described in the form above in Exhibit D. Comparative varieties should be used as may be appropriate, such as for disease. Append all comparative trial and evaluation data, including measured characters, environmental, and disease tests.



100-10

100-10

MAY 29 1984

7

PrattvilleAll Varieties Tested

Heading date

Anova

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Rep	3	46	0.5
Variety	8	3216	34.5*
Error	347	93	

\* Sign. at P = .05

Duncan's

<u>Variety</u>	<u>Julian Days</u>	
Kenhy	136	A*
Johnstone	134	AB
MO 96	133	AB
KY-31	130	B
Alta	124	C
Forager	121	C
AU Triumph	115	D
Fawn	114	D
Goar	113	D

\* Means with common letters are not sign. diff. at P = .05

Both LocationsAll Varieties Tested

Headind Date

Anova

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Location	1	641	6.86*
Rep	3	144	1.54
Rep x Loc	2	220	2.35
Variety	8	5029	53.80*
Var x Loc	8	124	1.33
Error	551	93	

\* = Sign at P = .05

Duncan's

<u>Variety</u>	<u>Julian Days</u>	
Kenhy	136	A*
Johnstone	135	A
Mo 96	134	A
KY-31	132	A
Alta	123	B
Forager	122	B
AU Triumph	117	C
Fawn	116	CD
Goar	113	D

\* Means with common letters are not sign. diff. at P = .05



MAY 29 1984

PrattvilleAU Triumph vs Fawn vs Goar

## Panicle Length

## Anova

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Rep	3	6.7	0.6
Variety	2	147.0	14.1
Error	117	10.4	

\* = Sign. diff. at P = .05

## Duncan's

<u>Variety</u>	<u>Length (cm)</u>	
Fawn	30.5	A*
Goar	28.2	B
AU Triumph	26.8	C

\* Means with common letter are not sign. diff.  
at P = .05PrattvilleAU Triumph vs Fawn vs Goar

## Panicle Shape

## Anova

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Rep	3	0.3	.72
Variety	2	13.7	30.67
Error	117	0.4	

\* = Sign at P - .05

## Duncan's

<u>Variety</u>	<u>Shape</u> †	
Fawn	2.5	A*
AU Triumph	2.0	B
Goar	1.3	C

\* Means with common letter are not sign.  
diff. at P = .05† 1 = narrow-tapering  
2 = ovate  
3 = oblong



MAY 29 1964

PrattvilleAU Triumph vs Fawn vs Goar

## Panicle Type

## Anova

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Rep	3	1.5	3.0 *
Variety	2	8.3	17.0
Error	117	0.5	

\* Sign at P = .05

## Duncan's

<u>Variety</u>	<u>Type</u> <sup>†</sup>
Goar	2.6 A*
AU Triumph	2.0 B
Fawn	1.8 B

\* Means with common letter are not sign. diff. at P = .05

† 1 = open  
2 = intermediate  
4 = compact

PrattvilleAU Triumph vs Gawn vs Goar

## Panicle Orientation

## Anova

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Rep	3	0.02	0.2
Variety	2	0.56	5.5*
Error	118	0.10	

\* Sign at P = .05

<u>Variety</u>	<u>Orientation</u> <sup>†</sup>
Fawn	1.3 A*
Goar	1.1 B
AU Triumph	1.0 B

\* Means with common letter are not sign. diff. at P = .05

† 1 = erect  
2 = nodding



100010

MAY 29 1984

PrattvilleAU Triumph vs Goar vs Fawn

Height at maturity

Anova

<u>Source</u>	<u>DF</u>	<u>MS</u>	<u>F</u>
Rep	3	479	5.5*
Variety	2	2680	30.6*
Error	118	88	

\* = Sign. at P = .05

Duncan's

<u>Variety</u>	<u>Height (cm)</u>	
Fawn	124	A*
Goar	120	A
AU Triumph	108	B

\* Means with common letter are not sign. diff at P = .05

Both LocationsAU Triumph vs Fawn vs Goar

Height at maturity

Anova

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Location	1	36.102	302.7*
Rep	3	252	2.1
Rep x Loc	2	818	6.7
Variety	2	3476	29.2
Var x Loc	2	64	0.5
Error	193	119	

\* = Sign. at P = .05

Duncan's

<u>Variety</u>	<u>Height (cm)</u>	
Fawn	110	A*
Goar	109	A
AU Triumph	100	B

\* Means with common letter are not sign. diff. at P = .05



MAY 29 1994

PrattvilleAU Triumph vs Goar vs Fawn

Crown width at heading

Anova	Source	df	MS	F
	Rep	3	23	7.0 *
	Variety	2	34	10.1 *
	Error	118	3	

\* = Sign. at P = .05

Duncan's

Variety	Crown (cm)
AU Triumph	9.0 A*
Fawn	8.8 A
Goar	7.3 B

\* Means with common letters are not sign.  
diff. at P = .05Both LocationsAU Triumph vs Goar vs Fawn

Crown width at heading

Anova	Source	df	MS	F
	Location	1	15	4.2*
	Rep	3	5	1.4
	Rep x Loc	2	42	11.9
	Var	2	47	13.2
	Var x Loc	2	6	1.7
	Error	193	4	

\* Sign diff. at P = .05

Duncan's

Variety	Crown (cm)
Fawn	8.7 A*
AU Triumph	8.6 A
Goar	7.2 B

\* Means with common letters are not sign.  
diff. P = .05



EXHIBIT A - SUMMARY OF

EXHIBIT B

EXHIBIT C

EXHIBIT D

EXHIBIT E

EXHIBIT F

EXHIBIT G

EXHIBIT H

EXHIBIT I

EXHIBIT J

EXHIBIT K

EXHIBIT L

EXHIBIT M

EXHIBIT N

EXHIBIT O

EXHIBIT P

EXHIBIT Q

EXHIBIT R

EXHIBIT S

EXHIBIT T

EXHIBIT U

EXHIBIT V

EXHIBIT W

EXHIBIT X

EXHIBIT Y

EXHIBIT Z

EXHIBIT AA

EXHIBIT AB

EXHIBIT AC

EXHIBIT AD

MAY 29 1984

- 14D. 'AU Triumph' has been shown to give much higher late winter - early spring forage yields than other cultivars in the Southeastern U.S.

ACORN S. YAM

ACORN S. YAM



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